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THE SAYRE OBSERVATORY, SOUTH BETHLEHEM,
PENNSYLVANIA.

BY C. L. DOOLITTLE.

On the first day of September, 1866, occurred the formal opening of the Lehigh University, at South Bethlehem, Pennsylvania. Professor ALFRED M. MAYER, now connected with the STEVENS Institute of Technology, was the first professor of astronomy, which department was then united with that of physics.

Professor MAYER felt that the attempt to teach astronomy with no instrumental means was most unsatisfactory, and mainly through his efforts, Mr. ROBERT H. SAYRE, one of the most prominent men of the place, and a trustee of the University, became interested in the matter, and undertook to provide means or a small observatory. The result was the founding of the SAYRE Observatory, in 1868.

The plan was not an ambitious one, the total cost of building and instruments being only about \$5000.00.

The equipment consisted of a six-inch equatorial, by ALVAN CLARK & SONS; a portable transit instrument, by STACKPOLE; a sidereal clock, by BRAND; and, finally, an old zenith telescope, which is said to have been rejected by the U. S. Coast Survey, and which was purchased for a small sum, economy being a matter of necessity. It was with this instrument, repaired by KAHLER in 1875, and afterward by SAGMÜLLER in 1888 and 1892, that a series of latitude observations was carried on by the writer for a number of years, the results of which, it is believed, have been of some service in determining what is now known of the law of latitude variation.

Professor MAYER was more interested in physics than in astronomy, yet he found time for research work at the observatory, mainly in the direction of solar physics. He was succeeded in 1871 by HIERO B. HERR, the chair of astronomy being now connected with that of mathematics. Professor HERR retired in 1874, the vacancy being filled one year later by the election of C. L. DOOLITTLE, who remained in charge for a period of twenty years. He was succeeded, in 1895, by C. L. THORNBURG, the present incumbent.

The original purpose of the observatory was that of instruc-

tion, and this has always been a prominent feature of its work. The university furnishes a very full course in astronomy, an important feature of which is found in the practical work at the observatory.

Considerable use has been made of the equatorial in the observation of planets and comets, and the phenomena of *Jupiter's* satellites; but the most important contribution to astronomy made by this observatory is the long series of latitude determinations. This series came to an end in August, 1895, but it is much to be desired that it should be resumed in the near future.

TOTAL SOLAR ECLIPSE, JANUARY 22, 1898.
ENGLISH PREPARATIONS.

BY EDWARD W. MAUNDER, F. R. A. S.

The importance of total solar eclipses has led in England to the appointment of a permanent body to organize their observations. This body bears the rather unwieldy title of the "Joint Permanent Eclipse Committee of the Royal Society and Royal Astronomical Society." The title is, however, descriptive of its constitution, and if we refer to it in future simply as the "Eclipse Committee," there need be no misunderstanding as to the body indicated, and we may avoid repetition of this cumbrous name.

The expeditions sent out by the Eclipse Committee last August were to widely separated countries,—Japan and Norway—and included six principal observers. Three—the Astronomer Royal, Professor H. H. TURNER, and Captain HILLS—went to Japan; three—Professor NORMAN LOCKYER, Mr. FOWLER, and Dr. A. A. COMMON—went to the Varanger Fjord, in Lapland. The same observers, so far as can be at present foreseen, will go to India for the eclipse of January next, and will take with them the same instruments, and try to carry out the same programme as that to which the clouds were so hostile on August 9, 1896. For, one chief aim to be borne in mind in eclipse observation is the necessity of strict continuity. If we are to get the maximum result from the brief moments of totality afforded us at such long intervals, then the operations to be undertaken at any one eclipse must bear the strictest relation to the work done at the eclipses that have gone before, and to the work proposed for those that